REDUCTION OF ARSENIC AND LEAD LEACHING IN PRESSURE TREATED WOOD AND PAINTED SURFACES

ABSTRACT OF THE DISCLOSURE

Objects painted with heavy metal based paint, particularly lead based paint, and chromated copper arsenate-treated wood represent point sources of heavy metals. Humans can be exposed to the heavy metals either through direct contact with a surface containing heavy metal or by contacting heavy metals that leached from a surface, potentially leading to toxic or carcinogenic effects. The present invention provides methods of reducing the solubility of heavy metals, so as to reduce their leaching and bioavailability. The methods typically involve applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base (e.g., lime), a source of iron ions (e.g., ferric chloride, ferric sulfate) or a combination thereof to a surface.